

# Research on the Food Service Industry in Central Taiwan

## ABSTRACT

This study examined the changes in business models in the food service industry of Taiwan in the post-pandemic era. After staying at home for a more prolonged period during the pandemic, more consumers choose to cook at home to save costs, leading to a booming homemade food market. This trend greatly increases the popularity of convenient meal kits, semi-finished products, and do-it-yourself (DIY) meal sets, which not only cater to consumers' interest in cooking but also provide convenient and quick solutions for food preparation. Food and beverage businesses have successfully expanded their market reach by developing high-quality homemade food products and utilizing self-media and e-commerce platforms for sales.

The immediacy and wide audience coverage of self-media economy have enabled influencers and food bloggers to directly demonstrate the use and effects of meal kits and DIY dining through live streams and short videos. This approach attracts large numbers of followers to purchase these products, thereby quickly enhancing product awareness and sales. Collaborating with self-media has become an effective marketing strategy for food and beverage businesses because it increases brand exposure and allows for product adjustments and improvements based on immediate consumer feedback.

The interviewed restaurants implemented various adjustments during the post-pandemic period, including arranging for industry-academia collaboration, enhancing employee training and incentives, strengthening restaurant recognition and sense of pride among employees, diversifying dish presentation, improving customer service systems, providing customized services, increasing investment in social media, reinforcing supplier relations, and expanding into new distribution channels. The study results indicate that food and beverage businesses can further explore the potential of self-media economy, develop more products suitable for online promotion, and continually optimize marketing strategies by leveraging data analysis and market research to meet consumer demands.

*Keywords:* Business model; post-pandemic era; food service industry; self-media; homemade food.

## 1. INTRODUCTION

### 1.1 RESEARCH BACKGROUND AND MOTIVATION

Labor shortage is a major challenge facing the Taiwanese food service industry. This problem stems from wages in the sector failing to rise in alignment with inflation and increasing living costs, resulting in minimal incentives for attracting new workers. Young individuals, in particular, are unwilling to accept low-paying, long-hour positions, preferring instead occupations that offer higher income and greater flexibility. Many opt for careers as "slashies" or in sales, where they can generate income from multiple occupations and enjoy flexible working hours, rather than being constrained to a single job. Consequently, food

**Comment [an1]:** There is no reference to taiwan – taiwanese food system.

**Comment [an2]:** No specific reference within the text, it must be considered as a side service.

service providers struggle to secure stable employees, leading to labor shortages, sometimes during peak hours.

Since the outbreak of the COVID-19 pandemic, Taiwan has been undergoing economic, environmental, social, and cultural changes, gradually transitioning into a low-desire society. In response to this shift, companies and policymakers must adapt their strategies to prioritize consumers' genuine needs and deliver more valuable products and services that align with emerging trends. This adaptation is crucial for navigating and influencing new consumption patterns.

This study employed business models to analyze the post-pandemic food service industry and identify factors contributing to the success of various business models. Additionally, it includes interviews with managers of food service providers in Taichung, Taiwan, to gain insights into their adjustments during the COVID-19 pandemic and the strategic changes they are implementing as the pandemic wanes. The purpose of this study was to identify new business models suitable for affordable restaurants in Taiwan.

Formatted: Highlight

Comment [an3]: Is the existing models evaluated to decided on the best model? Or the objective is proposing an efficient/better model?

Formatted: Highlight

Formatted: Highlight

## 2. LITERATURE REVIEW

This study employed business models to analyze the Taiwanese food service industry. Study presents an analysis of the present condition of the food service industry and its development.

### 2.1 MARKET ANALYSIS OF THE FOOD SERVICE INDUSTRY

Given that the prominent figures in the Taiwanese food service industry are predominantly restaurant groups, Section 1 focuses on restaurant groups in Taichung, particularly those specializing in hot pot, yakiniku, and omakase cuisines, which are widely popular and representative of the food service industry. Specifically, hot pot and yakiniku restaurants in Taichung face the fiercest competition.

Taichung boasts numerous renowned restaurant groups, each offering distinct culinary styles. Hot pot restaurants feature a variety of styles including Japanese hot pot, spicy hot pot, sukiyaki, shabu-shabu, and 2-in-1 yakiniku and hot pot. Yakiniku restaurants cater to diverse customer segments and price ranges, sharing similarities with hot pot restaurants but emphasizing visual aesthetics, privacy, alcoholic beverages, desserts, frozen desserts, and attentive service. Examples include unique interior designs, private dining rooms, and tableside yakiniku service.

Both types of restaurants have similar business models characterized by shared resources, activities, and appeals. These include menu development, omakase dining experiences, Japanese wabi-sabi aesthetics, specialty teas and alcoholic beverages, interior design, additional services (tea tasting or wine tasting), and reservation systems. As consumer expectations for high-quality dining and superior experiences grow, restaurant groups are increasingly adopting omakase cuisine. This approach provides customized and personalized dining experiences where consumers enjoy specialty dishes prepared exclusively for them. This evolving new business model enables restaurant groups to better understand consumer preferences, enhance their brand image, and bolster their competitiveness in the market.

Formatted: Highlight

Formatted: Highlight

## 2.2 CENTRAL KITCHEN

The emergence of the central kitchen as a novel food service supply model has garnered considerable attention, particularly for its role and impact in the post-pandemic era. This model involves the centralized procurement, processing, and delivery of food, presenting a completely new business model within the food service industry. According to Fujii et al. [1], centralization allows for economies of scale by consolidating tasks that are typically performed across multiple locations into a single facility. Huang [2] stated that central kitchens have many large equipment, ingredients, and skilled workers. The procurement, processing, and distribution of food involve various complex and labor-intensive procedures and equipment. Restaurants often have similar equipment, workflows, and food production procedures. Duplication of these procedures across individual restaurants is inefficient and wasteful of resources. To adapt to contemporary management practices, businesses must streamline their workflows and integrate resources to boost efficiency and minimize waste. As a new food service supply model, central kitchens can improve efficiency, while maintaining high quality standards and reducing costs. However, they encounter challenges such as ingredient quality control, optimization of delivery efficiency, and effective human resource management. Food service providers must adopt an adaptable mindset and embrace cutting-edge technologies and management techniques to proactively address these challenges and foster sustainable development in the food service industry.

Formatted: Highlight

Formatted: Highlight

## 3. RESEARCH DESIGN AND IMPLEMENTATION

This study employed business model theories to examine various business models within the food service industry and identify key factors that have contributed to the success of each business model. These factors serve as references to propose innovative models for advancing the food service industry.

Comment [an4]: What are those? – central kitchen/uniformed service provision and personalised services in different locations?

### 3.1 INTERVIEWEE

To investigate the evolution of business models in the food service industry in Taichung after the pandemic, this study interviewed two Taiwanese cuisine restaurants, two Cantonese cuisine restaurants, and two yakiniku restaurants. The rationale for selecting these restaurants is detailed as follows:

Comment [an5]: 6 restaurants. Why not mentioned in the abstract?

**Table 1.** Business models in the food service industry in Taichung

Cuisine	Restaurant	Reason 1	Reason 2	Reason 3	Reason 4
Taiwanese cuisine	Big Juicy Goose	Offers diverse cuisines such as seafood, Taiwanese cuisine, Hong Kong cuisine, and Cantonese cuisine and provides different services such as wedding banquets and	Annual revenue exceeds NT\$200 million	Positioned as a medium-priced restaurant	Sells merchandise across various online platforms

	Dong Zhan	Shan	catering. Offers claypot-roasted chicken, Taiwanese specialty	a	First Michelin-starred claypot-roasted chicken restaurant in Taiwan	Positioned as a medium-priced restaurant	Located at a popular tourist attraction
Cantonese cuisine	Han-Lai Xuan		Restaurant group		Uses green organic fresh ingredients	Positioned as a high-priced restaurant	Conveniently located with parking facilities
			Yu Yue Lou	Restaurant group	Sources ingredients directly from farms	Positioned as a high-priced restaurant	Conveniently located with parking facilities
Yakiniku	Yakiniku Honki		Yakiniku and izakaya		Known for innovative cooking techniques and cuisine	Positioned as a medium- to high-priced restaurant	Conveniently located with parking facilities
		Oretachi Nikuya	No	Japanese wagyu cuisine	Holds a Michelin star	Positioned as a high-priced restaurant	Conveniently located with parking facilities

#### 4. INTERVIEW

The first three chapters present a market research conducted to review the business models of hot pot, yakiniku, and omakase restaurants and compare the differences among them. The findings highlight the food service industry's continuous pursuit of excellence, emphasizing enhancements not only in ingredients and cuisines but also in local environment, transportation, dining atmosphere, and service quality. Chapter 4 presents in-depth interviews with prominent food service providers to explore their adaptations and strategies before and after the pandemic. Section 1 of Chapter 4 presents the interview questions and Section 2 presents a summary of the interview content. Finally, Chapter 5 provides the conclusion of the study.

##### 4.1 INTERVIEW QUESTION

This study investigated how businesses in the food service industry adapted in response to the pandemic by using the following questions:

1. Opportunities and mindsets for transformation
  - (1) Compared with your competitors, what innovative changes have you implemented? Why did you choose these changes as your breakthrough? (Consider factors including opportunities, trends, and personal capabilities).
2. Product innovation, customer management (target audience, sales method, and customer relationship), and infrastructure management (business resources, business activities, and business partners)
  - (1) How have the innovative changes and new business models influenced your original operations? (Consider factors such as product innovation, target audience, customer

**Comment [an6]:** Why in-depth interview was selected. How it is appropriate to current research? Why it was not mentioned before?

relationship, and sales methods).

- (2) What innovative business models have enabled your company to enhance and sustain its market competitiveness?

### 3. Finance

- (1) From a financial perspective (cost and revenue), how has the innovative business model performed, and how can it be further optimized?

### 4. Digital platform

- (1) What are your current and future plans regarding e-commerce and social media marketing for your company?

## 4.2 INTERVIEW CONTENT

This section presents interview responses of executives of renowned restaurants in Taichung regarding the innovations and transformations that were implemented in their restaurants before and after the pandemic:

### 1. Restaurant A, Taiwanese cuisine and catering restaurant (Big Juicy Goose)

Interviewee: General Manager Tai

Innovative changes and transformations in response to pandemic-induced challenges:

#### (1) Introduction of delivery services and bento boxes:

During the pandemic, Restaurant A initiated delivery services and introduced bento boxes in response to pandemic challenges. This innovative change enabled the restaurant to maintain operations during the pandemic and laid the groundwork for future business transformations.

#### (2) Opening a health store:

Before the pandemic, Restaurant A launched a health store offering unique products and services, such as delivery options and family meals. This strategic innovation positioned the restaurant for market breakthroughs after the pandemic, attracting a broader customer base.

#### (3) New seafood dishes:

Restaurant A introduced a variety of new seafood dishes distinct from its traditional menu offerings. This initiative targeted seafood enthusiasts, resulting in increased customer spending and enhanced revenue.

#### (4) Active online marketing:

Recognizing the importance of online marketing, Restaurant A intensified promotions for meal replacements and bento boxes. This online strategy bolstered customer acquisition, improved brand awareness, and expanded business opportunities.

#### (5) Talent recruitment and training:

Confronting labor shortages, Restaurant A collaborated with dispatch work agencies and considered hiring foreign workers. Additionally, partnerships with educational institutions provided internship opportunities.

### 2. Restaurant B, Taiwanese and Cantonese cuisine and catering restaurant (Dong Shan Zhan)

Interviewee: Director Nien (Owner)

Innovative changes and transformations in response to challenges arising from the later stage of the pandemic:

#### (1) Focus on one product:

Comment [an7]: Name was inserted. So why restaurant a?

Formatted: (Asian) Chinese (Traditional, Taiwan), Highlight

Formatted: Highlight

Formatted: (Asian) Chinese (Traditional, Taiwan), Highlight

Formatted: Highlight

Restaurant B opted to focus on refining a single product rather than diversifying its operations. This strategic decision allowed the restaurant to enhance service quality and establish a distinct brand identity and market position.

Formatted: Highlight

Comment [an8]: How the success of focused product and delivery was measured?

Formatted: Highlight

(2) Ownership of land resources:

To ensure stable operations amid uncertainties such as rent increases and lease constraints, Restaurant B invested in owning its land resources. This strategy avoided impacts from rent increases and lease restrictions and provided greater autonomy and operational flexibility.

(3) Continuous optimization of business model:

Restaurant B continually optimized its business model, focusing on cost management, efficiency improvements, and partnerships. These efforts aimed to enhance product quality, reduce operational costs, and enhance customer satisfaction.

Comment [an9]: Comparison of costs – revenues?

(4) Integration of e-commerce and social media marketing:

Restaurant B invested resources to developing its own online platform and leveraging social media for marketing and improving its brand awareness. This initiative fostered increased interactions between the restaurant and its customers, resulting in higher customer engagement and loyalty.

(5) Heritage and role positioning:

Restaurant B passed down its core values and business philosophies while pursuing innovations and breakthroughs to satisfy market and customer demands and actively adapt to market changes. This approach enabled the restaurant to maintain its competitive advantage and develop sustainably.

3. Restaurant C, Hong Kong and Cantonese cuisine restaurant (Han-Lai Xuan)

Interviewee: Manager Lin

Innovative changes and transformations in response to pandemic-induced challenges:

(1) Innovative brand management:

- Restaurant C focused on creating visually appealing dishes and used social media extensively for publicity and promotion.
- This strategy aimed to enhance brand awareness and attractiveness by encouraging customers to share photos.

Formatted: (Asian) Chinese (Traditional, Taiwan), Highlight

(2) Innovative technological applications:

- Restaurant C developed an application to gather customer data (including consumer behavior, preferences, and past orders). These data were used for precise marketing strategies and enhanced customer management.
- The adoption of computerized systems in ordering and kitchen operations improved service quality and order processing efficiency.

Comment [an10]: What strategies?

(3) Innovative customer relationship management:

- Restaurant C developed a comprehensive customer database that included customer birthdays and purchase histories. This enabled personalized services and targeted promotional activities.
- Leveraging big data analytics, Restaurant C analyzed customer behaviors and trends to optimize product promotions and refine market positioning strategies.

(4) Innovative human resource management:

- To mitigate shortages, Restaurant C employed foreign workers and optimized its

- recruitment processes to effectively manage high personnel costs.
- The restaurant implemented technological management solutions to enhance personnel efficiency and reduce management costs.

4. Restaurant D, Hong Kong and Cantonese cuisine restaurant (Yu Yue Lou)

Interviewee: General Manager Lai

Innovative changes and transformations in response to pandemic-induced challenges:

(1) Innovative customer relationship management:

- Restaurant D developed a comprehensive customer database that included customer birthdays and purchase histories. This allowed for personalized services and promotional activities.
- Leveraging big data analytics, Restaurant D analyzed customer behaviors and trends to optimize product promotions and refine market positioning strategies.

(2) Innovative human resource management:

- Restaurant D adopted technological management methods to enhance service quality and boost employee confidence.

5. Restaurant E, yakiniku restaurant (Yakiniku Honki)

Interviewee: Owner Chung

Innovative changes and transformations in response to pandemic-induced challenges:

(1) Launching delivery services and bento boxes:

During the pandemic, Restaurant E introduced delivery services and bento boxes amid the pandemic to mitigate its impact. This innovative change enabled the restaurant to sustain operations during the pandemic and laid the groundwork for future business transformations.

(2) Active online marketing:

Recognizing the critical role of online marketing, Restaurant E intensified its promotion and advertising efforts for meal replacements and bento boxes. This strategy expanded its customer base, enhanced brand visibility, thereby increasing business.

(3) Talent recruitment and training:

In response to labor shortages, Restaurant E collaborated with schools and offered internship opportunities.

6. Restaurant F, Michelin-starred yakiniku restaurant (Oretachi No Nikuya)

Innovative changes and transformations in response to pandemic-induced challenges:

(1) Innovative customer relationship management:

- Restaurant F developed a comprehensive customer database that included customer birthdays and purchase histories. This allowed for personalized services and targeted promotional activities.
- Leveraging big data analytics, Restaurant F analyzed customer behaviors and trends to optimize product promotions and refine market positioning strategies.

(2) Innovative human resource management:

Restaurant F employed technological tools and management methods to enhance service quality and foster employee confidence.

## 5. CONCLUSION

As the cost of living increases, an increasing number of individuals are opting to cook at home to reduce expenses. This trend has spurred the growth of the semi-homemade food industry, characterized by the popularity of meal sachets, semi-homemade meals, and meal kits. These products cater to consumers seeking the convenience of quick meals combined with the satisfaction of cooking at home. Food service providers have capitalized on this trend by developing high-quality semi-homemade food products tailored to the needs of home cooks. The use of self-media and e-commerce platforms has enabled providers to enhance their market reach and accessibility.

Self-media platforms offer distinct advantages such as timeliness and extensive audience coverage. Influencers and food bloggers leverage live streams and short videos to demonstrate the preparation and taste of meal sachets and kits, effectively attracting a large following that translates into product purchases. This interactive approach accelerates product popularity and sales.

Collaboration with self-media is an effective business strategy for food service providers to enhance visibility and promptly gather customer feedback for product refinement. In the future, food service providers could explore the potential of self-media and develop products that are suitable for online promotion. They could also perform data analysis and market research to optimize their marketing strategies and satisfy customer needs.

This study revealed post-pandemic innovations among interviewees in the restaurant industry, including partnerships with academic institutions, enhanced employee training and recognition, menu diversification, improved customer service systems, customization options, intensified social media engagement, strengthened supplier relations, and expanded distribution channels.

**Comment [an11]:** Some restaurants declared that they are making data analysis? How this analytics affected their efficiency

**Comment [an12]:** Connection of these attempts with business models needs to be evaluated in details. Which one is more efficient under which conditions?

## CONSENT (WHEREEVER APPLICABLE)

### ETHICAL APPROVAL (WHEREEVER APPLICABLE)

I declare that there is no plagiarism and violation of academic ethics in my thesis. I agree to take legal liability if there is any violation of academic ethics in the thesis

## REFERENCES

1. Fujii N, Kaihara T, Uemura M, Nonaka T, Shimmura T. Facility layout planning of central kitchen in food service industry: application to the real-scale problem. In *Advances in Production Management Systems. Sustainable Production and Service Supply Chains: IFIP WG 5.7 International Conference, APMS 2013, State College, PA, USA, September 9-12, 2013, Proceedings, Part II* (pp. 33–40). Springer Berlin Heidelberg.
2. Huang Q. The Development of Central Kitchen Logistics Management System in the University. In *7th International Conference on Education, Management, Information and Mechanical Engineering (EMIM 2017)* (pp. 254–257). Atlantis Press.